

the Berlin herbarium and J. Steinbach 7240 and 7296 in the Lillo herbarium.

Additional citations: BOLIVIA: Santa Cruz: Brooke 5958 (N, S); J. Steinbach 7240 (Ed—isotype, Ra—30/2719—isotype), 7296 (Ed, N, Ra—30/2717, Ut—97617); Troll 969 (B, Mu).

#### ADDITIONAL NOTES ON THE GENUS REHDERA. II

Harold N. Moldenke

For a detailed explanation of the herbarium acronyms employed in this paper and in all the other papers in my series of notes in this journal, see my Fifth Summary 2: 795—801 (1971).

#### REHDERA Mold.

Bibliography: Blake, Proc. Biol. Soc. Wash. 34: 45. 1921; P. C. Standl., Contrib. U. S. Nat. Herb. 23: 1237 & 1239. 1924; P. C. Standl., Journ. Wash. Acad. Sci. 14: 243. 1924; A. W. Hill, Ind. Kew. Suppl. 7: 50. 1929; Fedde & Schust., Justs Bot. Jahresber. 53 (1): 1071. 1932; P. C. Standl., Trop. Woods 37: 37. 1934; J. A. Clark, Card-Ind. Gen. Sp. Pl. issue 149 (7 cards), 1935; Mold., Feddes Repert. Spec. Nov. 39: 47—55, pl. 196. 1935; Record, Trop. Woods 46: 35. 1936; C. L. Lundell, Carnegie Inst. Wash. Publ. 478: 75. 1937; A. W. Hill, Ind. Kew. Suppl. 9: 67, 233, & 305. 1938; P. C. Standl., Field Mus. Publ. Bot. 18: 1013. 1938; Mold., Revist. Sudam. Bot. 6: [15] & 25—27. 1939; Mold., Prelim. Alph. List Inv. Names 17. 1940; Calderón & Standl., Fl. Salvador., ed. 2, 235. 1941; Mold., Alph. List Inv. Names 14. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 18, 20—23, & 99. 1942; Mold., Alph. List Cit. 1: 58, 88, 177, 204, 316, 318, & 319. 1946; Reko, Bol. Soc. Bot. Mex. 4: 35. 1946; Mold., Alph. List Inv. Names Suppl. 1: 5. 1947; Mold., Alph. List Cit. 2: 337, 340, 390, 426, 447, 502, & 503 (1948), 3: 679 & 821 (1949), and 4: 1000, 1040, 1041, 1048, 1053, 1069, & 1070. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 32, 36—40, & 195. 1948; Angely, Cat. Estat. Gen. Bot. Fanerog. 17: 6. 1956; Herter, Revist. Sudam. Bot. 10: 260. 1956; Anon., U. S. Dept. Agr. Bot. Subj. Ind. 15: 14359. 1958; Mold., Résumé 38, 42, 44, 45, 47, 256, 257, 259, & 468. 1959; Langman, Select. Guide Lit. Flow. Pl. Mex. 515 & 1010. 1964; F. A. Barkley, List Ord. Fam. Anthoph. 76 & 203. 1965; Mold., Phytologia 12: 6. 1965; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed. 7, 956. 1966; Anon., Gen. Costa Ric. Phan. 10. 1966; Fournier, Imp. Tree Fam. Costa Ric. 13. 1966; Mold., Résumé Suppl. 16: 3. 1968; Anon., Torrey Bot. Club Ind. Am. Bot. Lit. 3: 304 & 306. 1969; Gibson, Fieldiana Bot. 24 (9): 179 & 221—224, fig. 43. 1970; Lowden, Taxon 19: 23. 1970; Mold., Fifth Summ. 1: 5, 6, 73, 80, 82, 84—86, 88, 434, & 435 (1971) and 2: 617, 786,

& 906. 1971; Rouleau, Taxon Index Vols. 1-20 part 1: 315. 1972; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed. 8, 982. 1973; Molina R., Ceiba 18: 48 & 66 (1974) and 19: 96. 1975; Mold., Phytologia 31: 378 & 379 (1975), 40: 488 & 510 (1978), and 41: 450 & 510. 1979.

**REHDERA PENNINERVIA** Standl. & Mold.

Additional synonymy: Citharexylum pinninervium Standl. ex Mold., Feddes Repert. Spec. Nov. 39: 50, in syn. 1935; Prelim. Alph. List Inv. Names 17, in syn. 1940. Rehdera penninervia (Standl. ex Mold.) Standl. & Mold. ex Mold., Fifth Summ. 2: 617, in syn. 1971. Rehdera penninervis Standl. & Mold. ex Mold., Fifth Summ. 2: 617, in syn. 1971.

Bibliography: Mold., Feddes Repert. Spec. Nov. 39: 50--51. 1935; C. L. Lundell, Carnegie Inst. Wash. Publ. 478: 75. 1937; A. W. Hill, Ind. Kew. Suppl. 9: 233. 1938; Mold., Revist. Sudam. Bot. 6: 25--26. 1939; Mold., Carnegie Inst. Wash. Publ. 522: 194--195. 1940; Mold., Prelim. Alph. List Inv. Names 17. 1940; Mold., Suppl. List Common Vern. Names 16. 1940; Mold., Alph. List Inv. Names 15. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 20 & 99. 1942; Mold., Phytologia 2: 111. 1944; Mold., Alph. List Cit. 1: 32 (1946), 2: [327] (1948), and 4: 1069. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 36& 195. 1949; Mold., Résumé 42, 257, & 468. 1959; Gibson, Fieldiana Bot. 24 (9): 222. 1970; Mold., Fifth Summ. 1: 80, 82, & 435 (1971) and 2: 617, 786, & 906. 1971; Mold., Phytologia 40: 488. 1978.

Recent collectors describe this species as a shrub or tree, 4--41 m. tall, the trunk to 60 cm. in diameter at breast height, the bark gray, finely fissured, the nodes enlarged, the leaf-scars "facing forwards", the leaves decussate, with transparent glands and with a distinctive odor when crushed, the flowers aromatic, the calyx green, and the fruit green or greenish-red. They have found it growing in high or low forests, wet or dry tropical woods, on rocky hills and broken ridges, on savannas with trees and shrubs, on the borders of lakes, in acahuil, corozal, and zapatal on pinal trails, along riverbanks, in hogback hammocks, covering the ruins in ramonal, along roadsides, on wooded limestone hillsides, and in "upland sapodilla forests in heavy clay soil over calcareous substratum", at 140--600 m. altitude, flowering from September to January, and fruiting from October to March. Egler refers to it as "occasional".

The corollas are said to have been "white" on Contreras 1864, 7098, 7198, 7296, & 9556, Molina 15656, Ortiz 65 & 1434, and Proctor 29603 and "yellow" on Ortiz 1916. A wood sample accompanies Ortiz 65 and is MADw23127 at the Forest Products Laboratory, Madison, Wisconsin. Vernacular names reported for the species are "hinge hinge", "palo blanco", "papelillo", "raspa sombrero", "roble del mico", and "roble de meco".

Gibson (1970) separates the two taxa accepted by her in this genus as follows:

Leaf-blades usually obtuse or rounded apically, rarely acute or short-acuminate; fruiting-calyx sinuately denticulate.....  
*R. trinervis*.

Leaf-blades apically acuminate or long-acuminate; fruiting-calyx subtruncate.....  
*R. penninervia*.

Material of *R. penninervia* has been misidentified and distributed in some herbaria as *Citharexylum* sp. or even as Moraceae.

Additional citations: MEXICO: Chiapas: Pennington & Sarukhán K. 9533 (N). GUATEMALA: El Petén: H. H. Bartlett 12317 (Au-isotype, Ca--72689--isotype, Ca--593672--isotype, Ca--593778--isotype, Du--353989--isotype, Ld--isotype); Contreras 1864 (Ld, S), 5434 (N), 6829 (Au--278532, Ld, Ld, W--2558715), 7196 (Au--279677, Ip, Ld, Ld), 7198 (Ld, Ld, S), 7296 (Au--278968, Ld, Ld), 9556 (Ld, Ld), 10352 (Ld, Ld, W--2795423); Egler 42-248 (Sm); C. L. Lundell 16696 (Au--228034, Ld), 16747 (Au--228033, Ld, N, S), 16765 (Au--228035, Ld, S); Molina R. 15656 (N); Ortiz 65 [tree no. 16, cod. 8311] (N, Ws), 539 (N), 1434 (N), 1916 (N). BELIZE: Contreras 7098 (Au--280484, Ld, Ld); Gentle 5204 (Au--224733, Ld, Ld, Mi, N, S, W--2572680), 6987 (Au--239640, Ld, Ld, Ld, Ld, W--2480331); Liesner & Croat 1568 (W--2800457); Proctor 29603 (Ld), 29888 (Ld).

#### REHDERA TRINERVIS (Blake) Mold.

Additional synonymy: *Citharexylum macaodripin* Standl. ex Calderón & Standl., Fl. Salvador., ed. 2, 236, in syn. 1941.

Bibliography: Blake, Proc. Biol. Soc. Wash. 34: 45. 1921; P. C. Standl., Contrib. U. S. Nat. Herb. 23: 1237 & 1239. 1924; P. C. Standl., Journ. Wash. Acad. Sci. 14: 243. 1924; A. W. Hill, Ind. Kew. Suppl. 7: 50. 1929; Fedde & Schust., Justs Bot. Jahresber. 53 (1): 1071. 1932; P. C. Standl., Trop. Woods 37: 37. 1934; Moldenke, Feddes Repert. Spec. Nov. 39: 52--54, pl. 196. 1935; A. W. Hill, Ind. Kew. Suppl. 9: 233. 1938; P. C. Standl., Field Mus. Publ. Bot. 18: 1013. 1938; Mold., Revist. Sudam. Bot. 6: 26--27. 1939; Mold., Carnegie Inst. Wash. Publ. 522: 195. 1940; Mold., Prelim. Alph. List Inv. Names 16 & 17. 1940; Calderón & Standl., Fl. Salvador., ed. 2, 236. 1941; Mold., Alph. List Inv. Names 14 & 15. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 18, 21--23, & 99. 1942; Mold., Phytologia 2: 111. 1945; Mold., Alph. List Inv. Names Suppl. 1: 5. 1947; Mold., Alph. List Cit. 1: 58, 88, 177, 204, 228, 229, 316, 318, & 319 (1946), 2: 337, 340, 390, 426, 447, 502, & 503 (1948), 3: 679 & 821 (1949), and 4: 1000, 1040, 1041, 1048, 1051, 1053, & 1070. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 32, 37, 38, 40, & 195. 1949; Mold., Résumé 38, 44, 45, 47, 256, 259, & 468. 1959; Langman, Select. Guide Lit. Flow. Pl. Mex. 515. 1964; Mold., Résumé Suppl. 16: 3. 1968; Gibson, Fieldiana Bot. 24 (9): 222--224, fig. 43. 1970; Mold., Fifth Summ. 1: 73, 84, 85, 88, 434, & 437 (1971) and 2: 906. 1971; Molina R., Ceiba 19: 96. 1975; Mold., Phytologia 41: 450. 1979.

Illustrations: Mold., Feddes Repert. Spec. Nov. 39: pl. 196.

1935; Gibson, Fieldiana Bot. 24 (9): 223, fig. 43. 1970.

Gibson (1970) reduces R. mollicella Standl. & Mold. to synonymy under R. trinervis, but I still feel that the two taxa are separate, albeit perhaps not on a specific level. She cites R. trinervis from "Dry, brushy, often rocky plains and hillsides, 200--800 meters; Baja Verapaz; Chiquimula; Jutiapa. Mexico; Honduras; El Salvador; Nicaragua; Costa Rica."

Recent collectors describe R. trinervis as a shrub or tree, 3--15 m. tall, the trunk to 25 cm. in diameter at breast height, the branches many, arching, very leafy, and the flowers fragrant. They have encountered it in forests and advanced deciduous forests, as well as in matorrales on rocky hills, at altitudes of 125--1300 m., flowering from May to July, fruiting in July and December. Molina comments that it is "frequent". The corollas are said to have been "white" on Molina 14321, "green" on Molina 7075, and "pale-green" on Lundell & Lundell 7812.

Vernacular names reported for this species are "llayo", "sacuisilche", and "saquilzciché". Material has been misidentified and distributed in some herbaria as Schoepfia sp. in the Olacaceae. On the other hand, the Allen & Armour 7107, Molina R. 1432, 13008, & 14350, Tonduz 13792 [Herb. Inst. Physico-geogr. C.R.; Pittier], and Williams, Molina R., Williams, & Molina 42882, distributed as and in some cases previously cited by me as typical R. trinervis, actually are better regarded as f. mollicella (Standl. & Mold.) Mold.

Additional citations: MEXICO: Quintana Roo: Lundell & Lundell 7812 (Au--192508, Ld, Ld, Ld, N, Se--165559, Ws). YUCATÁN: G. F. Gaumer 24096 (Gg--160621); Gaumer & sons 23502 (Du--188792--isotype, Gg--160231--isotype); Lundell & Lundell 7587 (Ld). HONDURAS: Comayagua: Molina R. 7075 (W--2400821), 10984 (N). CORTÉS: Molina R. 13008 (N). COSTA RICA: Alajuela: Brenes 12690 [13030] (N, Si). Guanacaste: J. T. Howell 10193 (Gg--272294); Jiménez M. 2164 (N, W--2626586).

#### REHDERA TRINERVIS f. MOLLICELLA (Standl. & Mold.) Mold., Phytologia 41: 450. 1979.

Bibliography: Mold., Feddes Repert. Spec. Nov. 39: 51--52. 1935; J. A. Clark, Card-Ind. Gen. Sp. Var. Pl. issue 149. 1935; A. W. Hill, Ind. Kew. Suppl. 9: 67 & 233. 1938; Mold., Revist. Sudam. Bot. 6: 25. 1939; Mold., Prelim. Alph. List Inv. Names 16 & 17. 1940; Mold., Alph. List Inv. Names 14 & 15. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 20 & 99. 1942; Mold., Alph. List Cit. 2: 605. 1948; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 36 & 195. 1949; Mold., Résumé 42, 257, & 468. 1959; Gibson, Fieldiana Bot. 24 (9): 222 & 224. 1970; Lowden, Taxon 19: 23. 1970; Mold., Fifth Summ. 1: 80, 86, & 434 (1971) and 2: 906. 1971; Rouleau, Taxon Index Vols. 1-20 part 1: 315. 1972; Molina R., Ceiba 18: 48 & 66. 1974; Mold., Phytologia 31: 378 & 379 (1975) and 41:

450. 1979.

Recent collectors describe this plant as a shrub or small tree, 3-12 m. tall, the leaves coriaceous and dark-green, the flowers fragrant, and the fruit brown-purple or black. They have found it growing in moist thickets along quebradas, on rocky slopes and riverbanks, on dry plateaus in chaparral, at the edge of bluffs, and in "matorral y breñales", at altitudes of 160-650 m., flowering in June, September, and December, fruiting in October and November. The corollas are said to have been "white" on Molina 14321 & 14350 and "cream" on Standley 9324. Allen & Armour refer to it as "occasional". Vernacular names reported for it are "chicharrón", "jicarillo", "llayo", and "palillo". Pollen has been taken from Molina 14350 by M. Strick in 1972.

Molina (1974) has recorded this plant from Comayagua, Honduras. Gibson (1970), however, comments that "Since Standley and Moldenke described R. mollicella, numerous intermediate specimens from various localities have been collected, in which some of the smaller leaves appear triplinerved, but with 5-7 pairs of lateral veins in some larger leaves, these anastomosing near the margin or not. Standley 28593 from Honduras, Standley 9412 from Nicaragua, and Jiménez 312 from Costa Rica have leaves that are essentially glabrous but with 5-7 conspicuous pairs of lateral veins. Standley 28600 from Honduras has uniform small, triplinerved leaves, but they are densely pubescent beneath. Molina 14321 and 14350 from Honduras have most leaves triplinerved but all have patches of indument along the costae and most have sparsely scattered pubescence on the lower surface. Calyces of these intermediate specimens are usually glabrous, but a few on Molina 14321 are somewhat puberulent." It is possible that hybridity is involved here.

Material of R. trinervis f. mollicella has been misidentified and distributed in some herbaria as R. trinervis (Blake) Mold. in its typical form.

Additional & emended citations: GUATEMALA: Chiquimula: J. A. Steyermark 31547 (F--1037137, N). El Petén: H. H. Bartlett 12317 (F--652468-type, W--1571066-isotype). Jutiapa: J. A. Steyermark 31754 (F--1037124). ZACAPA: J. A. Steyermark 29323 (F--1043325, N), 29352 (F--1042871). HONDURAS: Comayagua: Molina R. 14321 (Ld, N, W--2568449). Cortés: Molina R. 13008 (N). El Paraíso: Williams, Molina R., Williams, & Molina 12882 (N, W--2734939). EL SALVADOR: La Libertad: Allen & Armour 7107 (Ld, N). NICARAGUA: Chontales: P. C. Standley 9324 (N). COSTA RICA: Guanacaste: Tonduz 13792 [Herb. Inst. Physico-geogr. Nat. Costaric. 13792; Pittier 13792] (B, B, Cb, Cb, N, N, N, W--934960, W--938845).